NBII Pacific Northwest Information Node

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Background

The National Biological Information Infrastructure (NBII) <www.nbii.gov> is an electronic information network that provides access to biological data and information on our nation's plants, animals, and ecosystems. Data and information maintained by federal, state, and local government agencies; nongovernment organizations; and private-sector organizations are linked through the NBII gateway and made accessible to a variety of audiences including researchers, natural resource managers, decision-makers, educators, students, and other private citizens.

Implementation of the NBII is being accomplished through the development of nodes that serve as interconnected entry points to the NBII and the information held by partners. These nodes function as fully digital, distributed, and interactive systems that focus on developing, acquiring, and managing content on a defined subject area (thematic nodes) or a geographic region (regional nodes). One of the regional nodes is the Pacific Northwest Information Node (PNWIN).



Primary Issues

PNWIN provides a dynamic focus for information exchange, communication, and decision support for natural resources management across the region. When fully developed, the node will be a regional source of biological and ecological data, bibliographic summaries, management principles, and regulatory requirements for public and private lands. The node also plans to provide additional user tools for decision-making and planning.

PNWIN is committed to sharing a common base of scientific information in a value neutral format that will facilitate reasoned debate and decision-making, thereby reducing conflict and leading to productive outcomes.

Partners

Major partners include the Oregon State University in Corvallis, OR; Northwest Habitat Institute in Corvallis, OR; U.S. Forest Service Pacific Northwest Research Station Fire and Environmental Research Applications Team in Seattle, WA; U.S. Geological Survey (USGS) Western Fisheries Research Center (WFRC) in Seattle, WA; USGS Forest and Rangeland Ecosystem Science Center (FRESC) in Corvallis, OR; University of Idaho in Moscow, ID; and the University of Washington in Seattle, WA.

Each partner brings specific expertise to the node:

U.S. Geological Survey, Center for Biological Informatics (Denver, CO) Administer the node.

Oregon State University, Northwest Alliance for Computational Science and Engineering (Corvallis, OR)
Administer the Web site; facilitate the development and application of network tools, Web sites, and decision support systems; and acquire key regional data sets.

Northwest Habitat Institute (Corvallis, OR)
Develop a relational database for the Interactive Biodiversity Information System based on the data from the Wildlife-Habitat Types in Oregon and Washington publication (Oregon State University Press, 2001).

U.S. Forest Service, Pacific Northwest Research Station, Fire and Environmental Research Applications Team (Seattle, WA) Provide fire and forestry content for the node.

U.S. Geological Survey, WFRC (Seattle, WA)
Contribute fisheries and salmon virus content for the node.

U.S. Geological Survey, FRESC (Corvallis, OR)
Supply technical and logistical support.



The Midwinter Bald Eagle Count is a cooperative project between PNWIN and the NBII Bird Conservation Node.

University of Idaho, Fire Research and Management Exchange System (Boise. ID)

Furnish content and technical support for the node.

University of Washington (Seattle, WA)

Supply technical expertise on project design and geographic data and the Olympic Natural Resources Center provides technical expertise on serving data and metadata.

Global Forest Information Service (Vienna, Austria)

Provides content and an international information dissemination service for the node.

Products

The PNWIN site concentrates on several components: (1) key data sets relevant to the scientifically based management of natural resources in the region; (2) bibliographies, regulatory information, and other links on the management of natural resources in the Pacific Northwest; and (3) user tools (e.g., decision support systems and models) that facilitate decision-making and planning by natural resource managers.

Projects include providing access to:

• Database on moss, lichen, and liverworts, which are a critical

- component of forests, from Olympic National Park that provides species descriptions, images, and distribution information;
- Bureau of Land Management study on forest density to determine if specific management practices can improve habitat and increase timber production;
- High-elevation tree ring study that provides information about climatic change in the Pacific Northwest;
- Significant publications such as the Northwest Forest Plan and its associated documents;
- Geo-referenced bibliography on coastal cutthroat trout that provides the location, life history form (e.g. anadromous or nonanadromous), estimated size, and likelihood of persistence for existing populations in Oregon and Washington;
- The Landscape Management System and Ecosystem Management decision support tools, which enable managers to evaluate particular actions and their effect on the forests;
- Access to more than 700 wildlife species in Oregon and Washington, habitat characteristics, and the impact of various management activities on habitat through the Interactive Biodiversity Information System;
- Web-based query and data entry system to access the Midwinter

- Bald Eagle Survey, a source of information about long-term trends of raptor species in partnership with the NBII Bird Conservation Node;
- FireHouse, a clearinghouse of fire research and information from the region with emphasis on projects supported by the Joint Fire Science Program and National Fire Plan; and
- International forestry data and information through collaboration with the Global Forest Information Service.

Near term activities include Web enabling a regional salmon virus database from the USGS WFRC to facilitate access to information needed by managers to track outbreaks and integrating the regional FireHouse fire science information with the national Fire Research and Management Exchange System (FRAMES), based at the University of Idaho.

In addition, the node will continue their efforts in synthesizing scientific data and management information, including user tools and modeling software pertaining to natural resources in the region with the goal of providing access through PNWIN and the national NBII network.

PNWIN demonstrates the value of providing access to a wide variety of natural resources data and information for the benefit of land managers, decision-makers, researchers, and the public.

For More Information

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